

What is claimed is:

1. A recording medium having a data structure for managing to resume reproduction of at least video data recorded on the recording medium, having data recorded thereon, the data comprising:

5 at least one data playing unit including the video data; and navigation information for managing the data playing unit, wherein the navigation information includes control information to indicate whether resumption of the data playing unit is permitted or not.

10 2. The recording medium of claim 1, wherein the data playing unit is a title or a program chain.

3. The recording medium of claim 2, wherein the control information is recorded in a program chain information table pertaining to the navigation information.

15 4. The recording medium of claim 1, wherein the data playing unit is a data section specified by a movie object constituting a title.

5. The recording medium of claim 4, wherein the control information is recorded in the movie object pertaining to the 20 navigation information.

6. The recording medium of claim 1, wherein the navigation information further includes commands to conduct operations according to value of the control information.

7. The recording medium of claim 1, wherein the control 25 information is applied when menu presentation is called during reproduction of the data playing unit.

8. A recording medium having a data structure for managing to resume reproduction of at least video data recorded on the recording

medium, having data recorded thereon, the data comprising:

menu data;

at least one data playing unit including the video data; and
navigation information for managing the data playing unit,

5 wherein the navigation information includes control
information to indicate a behavior on the data playing unit when
reproduction of the menu data is called during reproduction of the
data playing unit.

9. The recording medium of claim 8, wherein the control
10 information indicates that the data playing unit is discarded when
reproduction of the menu data is called during reproduction of the
data playing unit.

10. The recording medium of claim 8, wherein the control
information indicates that the data playing unit is suspended when
15 reproduction of the menu data is called during reproduction of the
data playing unit.

11. A recording medium having a data structure for managing
to resume reproduction of at least video data recorded on the recording
medium, having data recorded thereon, the data comprising:

20 menu data;

at least one data playing unit including the video data; and
navigation information for managing the data playing unit,
wherein the navigation information includes control
information to indicate whether or not to store current reproduction
25 location on the data playing unit when reproduction of the menu data
is called during reproduction of the data playing unit.

12. A recording medium having a data structure for managing
to resume reproduction of at least video data recorded on the recording

medium, having data recorded thereon, the data comprising:

menu data;

at least one data playing unit including the video data; and
navigation information for managing the data playing unit,

5 wherein the navigation information includes control
information to indicate whether or not to update location information
to resume from, when reproduction of the menu data is called during
reproduction of the data playing unit.

13. A method for recording a data structure for managing to
10 resume reproduction of at least video data on a recording medium,
comprising:

recording at least one data playing unit including the video
data on the recording medium; and

recording navigation information for managing the data
15 playing unit on the recording medium,

wherein the navigation information includes control
information to indicate whether resumption of the data playing unit
is permitted or not.

14. A method for recording a data structure for managing to
20 resume reproduction of at least video data on a recording medium,
comprising:

recording menu data and at least one data playing unit
including the video data on the recording medium; and

recording navigation information for managing the data
25 playing unit on the recording medium,

wherein the navigation information includes control
information to indicate a behavior on the data playing unit when
reproduction of the recorded menu data is called during reproduction

of the data playing unit.

15. A method for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

5 recording menu data and at least one data playing unit including the video data on the recording medium; and recording navigation information for managing the data playing unit on the recording medium,

10 wherein the navigation information includes control information to indicate whether or not to store current reproduction location on the data playing unit when reproduction of the recorded menu data is called during reproduction of the data playing unit.

15. A method for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

recording menu data and at least one data playing unit including the video data on the recording medium; and recording navigation information for managing the data playing unit on the recording medium,

20 wherein the navigation information includes control information to indicate whether or not to update location information to resume from, when reproduction of the recorded menu data is called during reproduction of the data playing unit.

17. An apparatus for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data; and
a controller for controlling the drive to record the encoded
video data as at least one data playing unit on the recording medium,
and for creating navigation information for managing the data playing
5 unit and controlling the drive to record the created navigation
information on the recording medium,

wherein the navigation information includes control
information to indicate whether resumption of the data playing unit
is permitted or not.

10 18. An apparatus for recording a data structure for managing
to resume reproduction of at least video data on a recording medium,
comprising:

a drive for driving an optical recording means that records
data on the recording medium;

15 an encoder for encoding the video data and menu data; and
a controller for controlling the drive to record the encoded
data on the recording medium such that the encoded video data is
recorded as at least one data playing unit, and for creating navigation
information for managing the data playing unit and controlling the
20 drive to record the created navigation information on the recording
medium,

wherein the navigation information includes control
information to indicate a behavior on the data playing unit when
reproduction of the recorded menu data is called during reproduction
25 of the data playing unit.

19. An apparatus for recording a data structure for managing
to resume reproduction of at least video data on a recording medium,
comprising:

a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data and menu data; and

20 a controller for controlling the drive to record the encoded data on the recording medium such that the encoded video data is recorded as at least one data playing unit, and for creating navigation information for managing the data playing unit and controlling the drive to record the created navigation information on the recording medium,

25 wherein the navigation information includes control information to indicate whether or not to store current reproduction location on the data playing unit when reproduction of the recorded menu data is called during reproduction of the data playing unit.

20. An apparatus for recording a data structure for managing 15 to resume reproduction of at least video data on a recording medium, comprising:

a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data and menu data; and

20 a controller for controlling the drive to record the encoded data on the recording medium such that the encoded video data is recorded as at least one data playing unit, and for creating navigation information for managing the data playing unit and controlling the drive to record the created navigation information on the recording 25 medium,

wherein the navigation information includes control information to indicate whether or not to update location information to resume from, when reproduction of the recorded menu data is called

· during reproduction of the data playing unit.

21. A method for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording medium, comprising the steps of:

5 reproducing a data playing unit including the video data from the recording medium;

· checking a resumable flag included in navigation information for managing the data playing unit if menu presentation is requested; and

10 conducting menu presentation operation after storing current reproduction location on the data playing unit, based on value of the resumable flag.

22. The method of claim 21, further comprising the step of resuming to reproduce from the stored reproduction location after 15 menu operation commanded from a user.

23. A method for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording medium, comprising the steps of:

reproducing a data playing unit including the video data from 20 the recording medium;

· checking a resumable flag included in navigation information for managing the data playing unit if menu presentation is requested; and

conducting menu presentation operation after updating 25 information of location to resume from on the data playing unit, based on value of the resume flag.

24. The method of claim 23, further comprising the step of resuming to reproduce from the updated location information after

menu operation commanded from a user.

25. An apparatus for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording medium, comprising:

5 a drive for driving an optical reproducing device to reproduce data recorded on the recording medium;

a decoder for presenting the reproduced data; and

a controller for controlling the drive to reproduce a data playing unit including the video data from the recording medium,

10 wherein, if menu presentation is requested, the controller checks a resumable flag included in navigation information for managing the data playing unit, and controls the drive and the decoder to conduct menu presentation operation after storing current reproduction location on the data playing unit, based on value of 15 the resumable flag.

26. The apparatus of claim 25, wherein the controller further controls the drive to resume reproduction from the stored reproduction location after menu operation commanded from a user.

27. An apparatus for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording medium, comprising:

a drive for driving an optical reproducing device to reproduce data recorded on the recording medium;

a decoder for presenting the reproduced data; and

25 a controller for controlling the drive to reproduce a data playing unit including the video data from the recording medium,

wherein, if menu presentation is requested, the controller checks a resumable flag included in navigation information for

managing the data playing unit, and controls the drive and the decoder to conduct menu presentation operation after updating information of location to resume from on the data playing unit, based on value of the resume flag.

5 28. The apparatus of claim 27, wherein the controller further controls the drive to resume reproduction from the updated location information after menu operation commanded from a user.